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Dkt. 05156

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Group Art Unit: 3723

THORSTEN SCHEIBEL et al

Serial No.: 10/560,287

Filed: December 12, 2006

For: SUPPORT FOR STRUCTURAL COMPONENTS AND  
METHOD FOR PRODUCING THE SAME

**SUBMISSION OF INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY**

Honorable Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Applicants submit herewith is the English  
translation of the International Preliminary Report on  
Patentability for the above-identified application.

Respectfully submitted,

Ira J. Schultz  
Registration No. 28666

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>44236</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/006381</b>	International filing date (day/month/year) <b>14.06.2004</b>	Priority date (day/month/year) <b>13.06.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>SCHUNK KOHLENSTOFFTECHNIK GMBH</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>10</u> sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))  _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/006381

Box No. 1 Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
  - ☐ publication of the international application (Rule 12.4)
  - ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ the international application as originally filed/furnished

- ☒ the description:

pages 5-12 \_\_\_\_\_ as originally filed/furnished  
 pages\* 2, 4 \_\_\_\_\_ received by this Authority on 13.04.2005 with  
telefax  
 pages\* 1, 3 \_\_\_\_\_ received by this Authority on 21.10.2005 with  
telefax

- ☒ the claims:

nos. \_\_\_\_\_ as originally filed/furnished  
 nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* 1-22 \_\_\_\_\_ received by this Authority on 13.04.2005 with  
telefax  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☒ the drawings:

sheets 1/3-3/3 \_\_\_\_\_ as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, nos. 23-33 \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/006381

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-22	YES
	Claims		NO
Inventive step (IS)	Claims	1-22	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-22	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

1 This report makes reference to the following document:

D1: JP 2000 304459

D1a: PATENT ABSTRACTS OF JAPAN vol. 2000, no. 14,  
5 March 2001 (2001-03-05)

2 **Novelty (PCT Article 33(1) and (2))**

2.1 The present application meets the requirements of PCT Article 33(1) because the subject matter of independent claim 1 is novel within the meaning of PCT Article 33(2).

D1 does not disclose a continuous fiber bundle in the form of single-layer or multi-layer fiber strands or twisted yarns, and therefore also does not disclose a grid of these continuous fiber bundles.

2.2 Since independent claim 1 is novel, claims 2 to 22, which are dependent on claim 1, are also novel.

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
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### 3 Inventive step (PCT Article 33(1) and (3))

3.1 The present application meets the requirements of PCT Article 33(1) because the subject matter of independent claim 1 involves an inventive step within the meaning of PCT Article 33(3).

D1, which is considered to be the prior art closest to that of independent claim 1, discloses a temperature-resistant support for the sintering process as the heat treatment process for electronic components.

The support consists of a ceramic frame in which long, continuous ceramic fibers that extend from the limbs and cross each other are stretched to form a net or a grid.

The subject matter of independent claim 1 differs from that of D1 in that a single continuous fiber bundle is used for the grid of the support.

The problem to be solved by the present invention can therefore be regarded as that of providing a support with different mesh widths which ensures that differently sized components to be hardened can be held on the support and ensures optimal flow of hardening oil or gas through the grid.

D1 does not disclose anything that would point to the solution to this problem, and the claimed solution according to independent claim 1 is not

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
	<p>obvious within the scope of general considerations from D1.</p> <p>Another document that could solve this problem in the same way and which could be combined with D1 in order to cast doubt on the inventiveness of the present subject matter has not been found.</p> <p>Independent claim 1 therefore involves an inventive step (PCT Article 33(1) and (3)).</p> <p><b>3.2</b> Claims 2 to 22 are dependent on claim 1 and therefore also meet the PCT requirements for inventive step.</p>